R6-35   At least one address conforming to ITU-T Recommendation X.121, *International numbering plan for public data networks*, shall be assigned to the analog modem connection or a DS1 channel.

6.6 Performance of CDC Interface

In general, the highest X.25 throughput class value that is less than or equal to the physical connection data rate should be used.

R6-36   Throughput classes of 9,600 or 19,200 bits/sec or higher shall be supported for X.25 service over the ESI analog wireline interface.

R6-37   Throughput classes of 9,600, 19,200, 48,000, 56,000, or 64,000 bits/sec or higher shall be supported for X.25 service over the ESI DS1 interface.

6.7 Availability and Reliability of CDC Interface

When a virtual circuit is reset, all data and interrupt packets that are in the network are discarded. Consequently, a virtual circuit should be reset only when no other mechanism can correct a particular error situation.

R6-38   If the terminal tries to disconnect a LAPB connection when PVCs are supported, the TC equipment shall interpret the attempt as a protocol error.

R6-39   If TC equipment detects a problem with the LAPB link layer, it shall attempt to re-establish the LAPB connection. If the attempt is unsuccessful, the TC equipment shall send a local and remote alarm indication to the PSPDN.

R6-40   If TC equipment detects that packets containing SIMPLE messages are discarded, TC shall identify the surveillances affected and notify the appropriate LEA.

7. Surveillance Interface Message Protocol for Law Enforcement (SIMPLE) Requirements

This section provides requirements for the ESI Surveillance Interface Message Protocol for Law Enforcement. The primary purpose of this protocol is to deliver call-identifying information. SIMPLE is designed to notify law enforcement regarding the subject's electronic communications activities via standardized messages across different networks and technologies. SIMPLE also contains messages and parameters that are used for correlation purposes. These messages are sent from a TC's network to an LEA over a specified CDC. The SIMPLE messages are divided into three categories: call-associated event messages, CCC administrative messages, and electronic surveillance administrative messages.

7.1 General Requirements

This section states general requirements related to SIMPLE.

R7-1   **All SIMPLE messages shall be delivered for call/service events performed by the subject or on the subject's behalf. This includes call-associated event messages, CCC administrative messages, and electronic surveillance administrative messages.**

R7-2   **SIMPLE messages shall be generated by the appropriate intercept access point (IAP) detecting the event of interest, and shall be sent over the CDC to the LEA.**

All call-associated SIMPLE messages have a Call Identifier (CallId) parameter. The CallId parameter allows law enforcement to associate a set of SIMPLE messages with a specific call for a subject. It is important that the CallId be unique for the duration of every intercepted call at each IAP. The CallId is initially generated when a subject attempts to originate a call or when an incoming call attempt is made to the subject. The same CallId is used on all subsequent messages related to that call or call attempt. If two calls are joined into a single call by the subject's service, then the oldest CallId remains active and the use of the other CallId is discontinued.

R7-3   **CallId shall be unique for every intercepted call at each IAP for the duration of the call or call attempt.**

R7-4   **A new CallId shall be generated for every Outgoing Call Start Message (OCSM) or Incoming Call Start Message (ICSM).**

R7-5   **The same CallId as reported in the OCSM/ICSM shall be used in all the subsequent SIMPLE messages for the duration of a call.**

R7-6   **When two calls are joined by the subject's service, the CallId of the oldest call shall remain active and shall be used in all the subsequent SIMPLE messages for the duration of a call.**

This interface specification uses Abstract Syntax Notation One (ASN.1), as described in ITU Recommendation X.208, *Specification of Abstract Syntax Notation One (ASN.1)*, to describe the SIMPLE messages and parameters. The purpose of abstract syntax language is to describe

1   messages in a machine-independent fashion. The standard set of encoding rules used with
2   ASN.1 are the Basic Encoding Rules (BER), which are defined in ITU Recommendation X.209.

3   **R7-7**   **The SIMPLE messages and parameters shall be specified using ASN.1 as**
4   **defined in ITU Recommendation X.208,** *Specification of Abstract Syntax*
5   *Notation One (ASN.1).*

6   **R7-8**   **BER as defined in ITU Recommendation X.209,** *Specification of basic encoding*
7   *rules for Abstract Syntax Notation One (ASN.1),* **shall be used for the SIMPLE**
8   **messages and parameters.**

7.2 SIMPLE Message Definitions

10   This section details the requirements for each SIMPLE message, including when it is expected to
11   be delivered. The messages in this section are in alphabetical order for reference purposes. To
12   understand the sequence of messages for a call or call attempt, refer to the examples of call
13   scenarios in Section 7.5.

7.2.1 Call-associated Event Messages

15   Call-associated Event Messages give the LEA information about events associated with the
16   subject's call activity.

7.2.1.1 Answer Message (ANSM)

18   The ANSM indicates that a call has been answered. The call can be answered by the subject, an
19   associate, or the network (e.g., an incoming call to the subject can be deflected to an
20   announcement). This message is only delivered the first time that a call is answered. For
21   example, when a Call Waiting subscriber returns to a previously answered call that is on hold, an
22   ANSM is not delivered.

23   **R7-9**   **An ANSM shall be delivered whenever a subject, an associate, or the network**
24   **answers a previously unanswered call. On calls originated by the subject, this**
25   **shall occur when answer supervision or an answer indication is detected. On**
26   **incoming calls to the subject, this shall occur when the IAP answers the call and**
27   **plays an announcement to the caller as directed by the subject.**

28   **R7-10**   **An ANSM shall be delivered whenever an associate answers a redirected call**
29   **from the subject.**

30   **R7-11**   **The AnsweringPartyId parameter shall be included in the ANSM if available at**
31   **the IAP.**

32   **R7-12**   **The following ASN.1 definition shall be used for the Answer Message:**

33   **AnswerMsg ::= SEQUENCE {**
34   **[0] TimeStamp,**
35   **[1] CaseId,**
36   **[2] CallId,**
37   **[3] AnsweringPartyId   OPTIONAL**

1   }

2

3   7.2.1.2 Call Diversion Message (CDM)

4 The CDM indicates that an incoming call attempt, originally directed toward a subject, has been
5 automatically redirected by the subject. Services to which this message is applicable include all
6 forms of call forwarding and AIN services that redirect a call (e.g., the Do Not Disturb service
7 that routes a call attempt to voice mail). For incoming calls to a wireless subject who is roaming,
8 this message will be delivered when a call attempt is diverted from the home location to the
9 subject's current location. If the redirection occurs after a call has been answered, a CDM
10 should not be delivered (e.g., via Call Transfer).

11   **R7-13**   **A CDM shall be delivered whenever an incoming call attempt, directed toward**
12   **a subject, is automatically redirected to a different address.**

13   **R7-14**   **A CDM shall be delivered whenever a wireless subject is roaming and the call is**
14   **redirected from the subject's home Mobile Switching Center (MSC) to the**
15   **current serving MSC.**

16   **R7-15**   **The RedirectedToNetworkId parameter shall appear in the CDM when a**
17   **wireless IAP reports a call diversion due to the subject's roaming.**

18   **R7-16**   **The following ASN.1 definition shall be used for the Call Diversion Message:**

19   **CallDiversionMsg ::= SEQUENCE {**
20   **[0] TimeStamp,**
21   **[1] CaseId,**
22   **[2] CallId,**
23   **[3] RedirectedToPartyId,**
24   **[4] RedirectReason,**
25   **[5] RedirectedToNetworkId   OPTIONAL**
26   **}**

27

28   7.2.1.3 Call Surveillance End Message (CSEM)

29 The CSEM indicates the end of a specific call or call attempt, and the release or expiration of its
30 associated CallId. For a call attempt or a call, it indicates that no parties remain connected. If
31 the subject is involved in two calls, each with its own CallId, and the subject merges them into a
32 single call, a CSEM is delivered to indicate the end of the call with the most recently generated
33 CallId.

34   **R7-17**   **A CSEM shall be delivered whenever a call or call attempt has ended. A CSEM**
35   **results in the release of the CallId associated with the call/call attempt.**

36   **R7-18**   **The following ASN.1 definition shall be used for the Call Surveillance End**
37   **Message:**

1   **CallSurveillanceEndMsg ::= SEQUENCE {**

2   **[0] TimeStamp,**

3   **[1] CaseId,**

4   **[2] CallId,**

5   **[3] CallSurveillanceEndReason**

6   **}**

7

8 7.2.1.4 Feature Status Message (FSM)

9 The FSM is reported whenever a subject alters a network-provided feature or a feature is
10 assigned/removed from a subject such that the delivery of call content or call-identifying
11 information may be affected.   Examples include when a subject activates/deactivates a call
12 forwarding feature from home, the TC assigns a conference calling feature to the subject, or the
13 subject remotely activates a call forwarding feature.   When a feature involves other parties, such
14 as call forwarding, then the FeatureAssociatedPartyIdList parameter indicates all parties
15 associated with the feature.

16   **R7-19 An FSM shall be delivered when the subject is assigned or unassigned a feature**
17   **that would impact the delivery of call content or call-identifying information to**
18   **law enforcement.**

19   **R7-20 An FSM shall be delivered when a network-provided feature is activated or**
20   **deactivated by the TC or the subject and the activation/deactivation would**
21   **impact the delivery of call content or call-identifying information to law**
22   **enforcement.**

23   **R7-21 When a feature involves other parties, the FeatureAssociatedPartyIdList**
24   **parameter shall indicate all parties associated with the feature.**

25   **R7-22 The following ASN.1 definition shall be used for the Feature Status Message:**

26   **FeatureStatusMsg ::= SEQUENCE {**

27   **[0] TimeStamp,**

28   **[1] CaseId,**

29   **[2] CallId   OPTIONAL,**

30   **[3] FeatureName,**

31   **[4] FeatureModification,**

32   **[5] FeatureAssociatedPartyIdList OPTIONAL**

33   **}**

34

35 7.2.1.5 Incoming Call Start Message (ICSM)

36 The ICSM provides the first indication of an incoming call to the subject. The ICSM is delivered
37 as soon as the IAP is aware of a call attempt to the subject, most likely before knowing the final
38 disposition of the call. For example, when an incoming call to a subject is redirected via Call

1   Forwarding Variable, the subject is never actually given the opportunity to answer the call, but
2   the ICSM is still delivered. A unique CallId is assigned each time this message is generated.

3   **R7-23 The ICSM shall be delivered whenever a call is attempted to a subject,**
4   **regardless of whether or not other call connections involving the subject are**
5   **active.**

6   **R7-24 The CallingPartyId parameter in the ICSM shall identify the associate who**
7   **originated the call whenever the information is available at the IAP.**

8   **R7-25 The CalledPartyId parameter in the ICSM shall include the identity of the**
9   **called party.**

10   **R7-26 The BearerCapability parameter in the ICSM shall be included whenever the**
11   **information is available.**

12   **R7-27 The ixcCI parameter in the ICSM shall be included when the incoming call is**
13   **being delivered to the subject's TC by an interexchange carrier if available at**
14   **the IAP.**

15   **R7-28 The RedirectedFromPartyId, NumRedirection, and RedirectReason**
16   **parameters in the ICSM shall be included when the incoming call attempt is**
17   **associated with a prior redirection and this information is available at the IAP.**

18   **R7-29 The callingPartyCI parameter in the ICSM shall identify the carrier serving, if**
19   **available at the IAP, the associate identified in the CallingPartyId parameter.**

20   **R7-30 The following ASN.1 definition shall be used for the Incoming Call Start**
21   **Message:**

22   **IncomingCallStartMsg ::= SEQUENCE {**
23   **[0] TimeStamp,**
24   **[1] CaseId,**
25   **[2] CallId,**
26   **[3] CallingPartyId   OPTIONAL,**
27   **[4] CalledPartyId,**
28   **[5] BearerCapability   OPTIONAL,**
29   **[6] RedirectedFromPartyId   OPTIONAL,**
30   **[7] NumRedirections   OPTIONAL,**
31   **[8] RedirectReason   OPTIONAL,**
32   **callingPartyCI   [9] CarrierIdentity   OPTIONAL,**
33   **ixcCI   [10] CarrierIdentity   OPTIONAL**
34   **}**

35

36   ## 7.2.1.6 Non-Analyzed Input Message (NAIM)

The Non-Analyzed Input Message provides all subject input that is not interpreted by the IAP. This input includes any digits that are dialed or any keys that are pressed on a terminal after cut-through. This input does not include data packets from a data service that a subject may use. Each input as it occurs from a subject's line should be sent in the NAIM immediately. An example of when this message would be used is when a subject dials into a voice mail system. The digits dialed post cut-through to control the voice mail system are not interpreted by the network so they are passed in the NAIM.

R7-31 **An NAIM shall be delivered each time that a subject provides input that is not interpreted at the IAP.**

R7-32 **The following ASN.1 definition shall be used for the Non-Analyzed Input Message:**

NonAnalyzedInputMsg ::= SEQUENCE {
    [0] TimeStamp,
    [1] CaseId,
    [2] CallId,
    [3] InputInformation
    }

7.2.1.7 Network Signal Message (NSM)

The NSM contains signaling information provided to the subject as a result of an incoming call or as a result of a feature invocation. It includes information on alerting tones, display text (that would be displayed on the subject's Customer Premises Equipment [CPE]), and indicators (e.g., CPE lamps turning on and off). This message can be delivered when the subject is not involved in a call or call attempt (e.g., a message waiting indicator lamp on the subject's CPE can be turned on). Examples include power ringing, call-waiting tone, reminder ring, reorder tone, and delivery of the calling party's number.

R7-33 **An NSM shall be delivered whenever a subject is provided with some alert or tone associated with an incoming call or a feature.**

R7-34 **If the NSM is reported for a non-call-associated event, then the CallId parameter shall not be sent.**

R7-35 **The following ASN.1 definition shall be used for the Network Signal Message:**

NetworkSignalMsg ::= SEQUENCE {
    [0] TimeStamp,
    [1] CaseId,
    [2] CallId   OPTIONAL,
    [3] Signal
    }

7.2.1.8 Outgoing Call Start Message (OCSM)

The OCSM indicates the start of a call attempt from a subject in an idle state. Examples of when this message is delivered are receipt of an off-hook indication from an analog line or receipt of a SETUP message from an ISDN appearance that is not already associated with a call. The OCSM is sent when a wireless subject presses the "SEND" key to initiate a call and the serving MSC initiates processing for the call attempt. A new CallId is generated each time that the OCSM is delivered.

R7-36   **The OCSM shall be delivered whenever an IAP detects a request for service from an idle subject (e.g., off-hook detection, receipt of a "SETUP" message for ISDN, or detection of a call origination attempt from a wireless subject)**

R7-37   **The following ASN.1 definition shall be used for the Outgoing Call Start Message:**

OutgoingCallStartMsg ::= SEQUENCE {
**   [0] TimeStamp,**
**   [1] CaseId,**
**   [2] CallId,**
**   [3] CallingPartyId**
**   }**

7.2.1.9 Packet Envelope Message (PEM)

The PEM provides information contained in any data packets that are generated by a subject or by the network on a subject's behalf. For ISDN, this is information contained in packets transmitted over the D-Channel in either direction that are not processed by the switch (e.g., user-to-user signaling). For wireless services, this includes information contained in both IS-41 Short Message Service (SMS) and Global Systems for Mobile Communications (GSM) SMS packets.

R7-38   **A PEM shall be delivered each time that a data packet is detected over an ISDN D-channel that is not interpreted by the IAP.**

R7-39   **A PEM shall be delivered when data packets (e.g., SMS) are detected in wireless networks.**

R7-40   **If the PEM is reported for a non-call-associated event, then the CallId parameter shall not be sent.**

R7-41   **The following ASN.1 definition shall be used for the Packet Envelope Message:**

PacketEnvelopeMsg ::= SEQUENCE {
**   [0] TimeStamp,**
**   [1] CaseId,**
**   [2] CallId   OPTIONAL,**
**   [3] PacketAddressType   OPTIONAL,**
**   [4] SenderAddress   OPTIONAL,**

[5] ReceiverAddress   OPTIONAL,

[6] PacketType   OPTIONAL,

[7] Packet

}

7.2.1.10 Party Disconnect Message (PDM)

The PDM indicates that a subject or an associate has requested to disconnect from a call. The PDM also indicates if a subject or an associate is disconnected from a call by the network. A PDM does not indicate the end of a call; it just indicates that the party specified in the DisconnectPartyId has requested to disconnect from the call (e.g., a subject went on-hook).

> **R7-42** **A PDM shall be delivered whenever a subject or an associate requests to be disconnected (e.g., goes on-hook) or is disconnected from an established call by the network.**

> **R7-43** **The following ASN.1 definition shall be used for the Party Disconnect Message:**
>
> **PartyDisconnectMsg ::= SEQUENCE {**
>
> **[0] TimeStamp,**
>
> **[1] CaseId,**
>
> **[2] CallId,**
>
> **[3] DisconnectPartyId,**
>
> **[4] DisconnectReason**
>
> **}**

7.2.1.11 Party Hold Message (PHM)

The PHM indicates that one or more associates are placed on hold by the subject. If the subject returns to the held associate(s), a Party Join Message (PJM) is delivered. A subject with Call Waiting feature toggling back and forth between two associates results in pairs of PHMs and PJMs. Example services that may generate a PHM include Three-Way Calling, Call Waiting, and Call Hold.

> **R7-44** **A PHM shall be delivered each time that a subject places one or more associates on hold.**

> **R7-45** **The following ASN.1 definition shall be used for the Party Hold Message:**
>
> **PartyHoldMsg ::= SEQUENCE {**
>
> **[0] TimeStamp,**
>
> **[1] CaseId,**

1   **[2] CallId,**

2   **[3] HeldPartyId**

3   **}**

4

7.2.1.12 Party Join Message (PJM)

The PJM indicates that the subject has merged one or more previously held associates into an active call (e.g., each time that a subject uses the flash key to toggle between two associates for a Call Waiting feature or when a subject with Three-Way Call feature adds an associate to an existing two-way call. The PJM is used to indicate that a disconnected party has rejoined the call (e.g., disconnected party goes off-hook prior to completion of disconnect processing). The PJM is also used to indicate that an associate has joined an existing call with a subject (e.g., barge-in feature, Electronic Key Telephone Service group with multiple call appearances).

    R7-46   **A PJM shall be delivered when the subject has merged one or more previously held associates into an active call.**

    R7-47   **A PJM shall be delivered when the subject or an associate who requested to disconnect rejoins the call.**

    R7-48   **A PJM shall be delivered when an associate joins an existing call involving a subject (e.g., barge-in feature).**

    R7-49   **The following ASN.1 definition shall be used for the Party Join Message:**

    PartyJoinMsg ::= SEQUENCE {

        [0] TimeStamp,

        [1] CaseId,

        [2] CallId,

        [3] JoinedPartyId

        }

7.2.1.13 Serving System Identification Message (SSIM)

The SSIM identifies the TC capable of serving an intercept subject. The SSIM is delivered whenever a subject registers for the first time in a service area. Examples include when a mobile subject roams to a new TC's service area or when a mobile subject registers outside the home service area but within the network of the same TC. The SSIM also indicates when a subject is no longer being served by the TC. The message is applicable to wireless subscribers and potentially to subscribers of Universal Personal Telecommunications (UPT) type services.

    R7-50   **The SSIM shall report that a TC is capable of providing service to a subject as a result of registration.**

    R7-51   **The SSIM shall report that a TC is no longer capable of providing service to a subject as a result of deregistration or cancellation.**

R7-52   The CarrierIdentity in the SSIM shall identify the TC of the service area to which the subject is registered or from which the subject is no longer registered.

R7-53   The following ASN.1 definition shall be used for the Serving System Identification Message:

```
ServingSystemIdentificationMsg ::= SEQUENCE {
    [0] TimeStamp,
    [1] CaseId,
    [2] CallId          OPTIONAL,
    [3] SSIMReason,
    [4] CarrierIdentity
    }
```

7.2.1.14 Subject Input Analyzed Message (SIAM)

The SIAM contains all call routing information generated as a result of a subject's input, including the translation of speed dialing and network address information. For instance, when a caller places a call using a valid 800 number, the number is translated into a routing address before the call can be completed. In this case, a SIM containing the dialed 800 number is delivered as input information; then a SIAM containing routing information (which could be the dialed 800 number plus the identity of a carrier to whom the call is routed) is delivered. A SIAM is delivered each time a subject's input is translated.

> **R7-54** **The SIAM shall be delivered whenever the IAP analyzes the subject's input or other addressing information resulting from the subject's initial input (e.g., IN or AIN database query results, translation of speed dial digits) and determines a network routing address.**

> **R7-55** **The BearerCapability parameter shall be included in the SIAM whenever available.**

> **R7-56** **The CarrierIdentity, if available, shall be included in the SIAM, if the call or call attempt is being routed through an intermediate carrier.**

> **R7-57** **The following ASN.1 definition shall be used for the Subject Input Analyzed Message:**

```
SubjectInputAnalyzedMsg ::= SEQUENCE {
    [0] TimeStamp,
    [1] CaseId,
    [2] CallId,
    [3] CalledPartyId,
    [4] BearerCapability  OPTIONAL,
    [5] CarrierIdentity   OPTIONAL
    }
```

7.2.1.15 Subject Input Message (SIM)

The SIM contains all subject input used to initiate or control call activity (e.g., to set-up a call) or feature operation (e.g., activating or deactivating call waiting). For example, a SIM may include

dialed digits and hook-flashes. The dialed digits should be reported either at the completion of dialing or when the IAP has collected enough digits to route a call. If a call is terminated either by the subject or the network before dialing is completed, a SIM should be sent before sending any other message to report partially dialed digits.

R7-58 **The SIM shall be delivered to report all input from the subject (e.g., dialed digits, flash signals) used to initiate a call attempt or to control a feature operation.**

R7-59 **The SIM shall be delivered whenever sufficient input has been received or the call attempt is abandoned with partial input (e.g., when the interdigit timer expires or a subject abandons the call).**

R7-60 **The following ASN.1 definition shall be used for the Subject Input Message:**

SubjectInputMsg ::= SEQUENCE {
    [0] TimeStamp,
    [1] CaseId,
    [2] CallId,
    [3] InputInformation,
    [4] BearerCapability   OPTIONAL
    }

7.2.1.16 Subject Mobility Message (SMM)

The SMM indicates available information on a subject's mobility. This information is available as part of call-identifying information or otherwise. The delivery of this message is activated only on the basis of a lawful order from an LEA authorizing the TC to deliver a subject's location information. The SMM pertains to the surveillance of subjects using mobility services.

R7-61 **The SMM shall be activated based on a lawful order from an LEA authorizing the TC to deliver a subject's location information.**

R7-62 **The SMM shall be delivered to the LEA whenever the subject changes location within or between systems and this location information is available to the IAP.**

R7-63 **The following ASN.1 definition shall be used for the Subject Mobility Message:**

SubjectMobilityMsg ::= SEQUENCE {
    [0] TimeStamp,
    [1] CaseId,
    [2] CallId   OPTIONAL,
    [3] Location
    }

7.2.2 Call Content Channel Administrative Messages

CCC administrative messages are used to give LEA information about call content delivery.

7.2.2.1 Connection Activated Message (CAM)

The CAM is used at the beginning of a call attempt to specify if a subject or an associate will be "talking" or "listening" on a specific CCC. The transmit and receive paths are individually identified even if they share the same CCC (i.e., one CAM per speech path). CAMs are delivered immediately after an event, causing a CCC assignment.

R7-64 A CAM shall be delivered each time that a transmit or receive communications path is assigned to a CCC.

R7-65 The following ASN.1 definition shall be used for the Connection Activated Message:

ConnectionActivatedMsg ::= SEQUENCE {
**   [0] TimeStamp,**
**   [1] CaseId,**
**   [2] CallId,**
**   [3] CCCId,**
**   [4] TalkOrListenIndicator,**
**   [5] PartyId   OPTIONAL**
**   }**

7.2.2.2 Connection Cleared Message (CCM)

The CCM indicates the end of call content delivery on a specified CCC. It is used at the end of a call to indicate to the LEA that a specific CCC is no longer active. This message is the counterpart to the CAM. One CCM is required for each communications path that is deactivated, even if two or more parties share the same CCC (i.e., combined CCC).

R7-66 A CCM shall be delivered for each CCC that is deactivated by the IAP.

R7-67 The following ASN.1 definition shall be used for the Connection Cleared Message:

ConnectionClearedMsg ::= SEQUENCE {
**   [0] TimeStamp,**
**   [1] CaseId,**
**   [2] CallId,**
**   [3] CCCId**
**   }**

7.2.3 Electronic Surveillance Administrative Messages

Electronic surveillance administrative messages provide information to an LEA that is required to maintain a reliable interface to a TC network.

7.2.3.1 Surveillance Status Message (SSM)

The SSM indicates the status of the surveillance function for a particular subject. The SSM is sent when the surveillance is activated, updated, or deactivated. The SSM is also sent to verify the status of surveillance function for a subject every hour for the duration of the surveillance. This message indicates whether the surveillance is being activated, updated, deactivated, or is still active, and the identities of the associated CCCs. A particular surveillance may be updated to add or delete CCCs assigned for the surveillance.

R7-68 **An SSM shall be delivered for each surveillance (identified by CaseId) when the surveillance is activated, deactivated, or updated; and once every hour while the surveillance is in effect.**

R7-69 **The DedicatedCCCIds parameter shall be included in the SSM when the surveillance involves the delivery of call content. This parameter shall identify all provisioned CCCs for the surveillance.**

R7-70 **The following ASN.1 definition shall be used for the Surveillance Status Message:**

SurveillanceStatusMsg ::= SEQUENCE {
    [0] TimeStamp,
    [1] CaseId,
    [2] SubjectId,
    [3] SureillanceStatus,
    [4] DedicatedCCCIds   OPTIONAL
    }

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7.3 SIMPLE Parameter Definitions

This section defines the parameters used in the SIMPLE messages. The parameters are listed in alphabetical order.

7.3.1 AnsweringPartyId

The AnsweringPartyId parameter provides information associated with the party answering a call. The subject, an associate, or the network can answer a call.

R7-71   The AnsweringPartyId parameter shall indicate whether the network or an end user (i.e., subject or associate) answered a call to or from the subject.

R7-72   The AnsweringPartyId parameter shall be encoded as follows:

        AnsweringPartyId ::= CHOICE {
                network   [0] NULL,
                subjOrAssoc   [1] PartyId
                }

7.3.2 BearerCapability

The BearerCapability parameter identifies the bearer capability being used by a subject or an associate for a call attempt or a call.

R7-73   The BearerCapability parameter shall be set to indicate the bearer capability requested/provided to a subject.

R7-74   The BearerCapability parameter shall be encoded as follows:

        BearerCapability ::= ENUMERATED {
                speech   (0),
                f31kHzAudio   (1),
                f7kHzAudio   (2),
                b56kbps   (3),
                b64kbps   (4),
                packetModeData (5),
                multiRate   (6)
                }

7.3.3 CallId

The CallId parameter represents the unique identity of a call or call attempt involving a subject. The CallId parameter is unique within the IAP for the duration of the call or call attempt. It is initially generated when a subject attempts to originate a call (an OCSM is delivered) or an incoming call attempt is made to the subject (an ICSM is delivered). It is used on all subsequent messages involved in the call or call attempt. Refer to Section 7.1 for general requirements for the CallId parameter.

1   **R7-75 The CallId parameter shall be encoded as follows:**

2   CallId ::= INTEGER (0..999999)

3

4   7.3.4 CalledPartyId

5   The CalledPartyId parameter provides information identifying the destination of a call or call
6   attempt. The CalledPartyId parameter contains the following information elements: Nature of
7   Called Number, Numbering Plan, and the Party ID. The Party ID identifies the network routing
8   address and/or network element identifier(s) associated with the destination party. The network
9   element identifier(s) could include an ISDN Service Profile ID (if the call is directed to an ISDN
10   terminal) or a trunk group (public or private) identifier.

11   **R7-76 The CalledPartyId parameter shall indicate the destination of an intercepted**
12   **call or call attempt and shall provide contextual information on the destination**
13   **number provided (i.e., the type of destination address and the numbering plan).**

14   **R7-77 The PartyId information element shall be sent at all times except when the**
15   **NatureOfNumber information element indicates "No Address Operator**
16   **Requested" or "No Address Cut Through To Carrier."**

17   **R7-78 The CalledPartyId parameter shall be encoded as follows:**

18   **CalledPartyId ::= SEQUENCE {**
19   **[0] CalledNatureOfNumber,**
20   **[1] NumberingPlan,**
21   **[2] PartyId**
22   **}**

23   **CalledNatureOfNumber ::= ENUMERATED {**
24   **notApplicable   (0),**
25   **subscriberNum   (1),**
26   **nationalNum   (2),**
27   **internationalNum   (3),**
28   **subscriberNumOperatorReq   (4),**
29   **nationalNumOperatorReq   (5),**
30   **internationalNumOperatorReq   (6),**
31   **noAddressOperatorReq   (7),**
32   **noAddressCutThruToCarrier   (8),**
33   **lecPublicOrHotelMotelOrNonEAEO950Call (9)**
34   **}**

35

36   **NumberingPlan ::= ENUMERATED {**
37   **unknownOrNotApplicable   (0),**

	isdnRecE164	(1),
	private	(2),
	imsiRecE212	(3)

}

7.3.5 CallingPartyId

The CallingPartyId parameter provides information identifying the party originating or attempting to originate a call. The CallingPartyId parameter contains the following information elements: Nature of Calling Number, Numbering Plan, Presentation Restriction Indicator, Screening Indicator, and the Party ID. The Party ID identifies the network routing address and/or network element identifier(s) associated with the originating party. The network element identifier(s) could include an ISDN Service Profile ID (if the call originates from an ISDN terminal) or a trunk group identifier.

R7-79 **The CallingPartyId parameter shall indicate the originating party of an intercepted call or call attempt and shall provide contextual information on the origination number provided (i.e., the type of address, the numbering plan, the presentation status of the address, and the screening status of the address).**

R7-80 **For non-ISDN calling parties, the CallingParty information element of the CallingPartyId parameter shall contain only the networkProvided PartyId component (e.g., the DN associated with an analog line).**

R7-81 **For an ISDN calling party, the CallingParty information element of the CallingPartyId parameter shall contain both the networkProvided and userProvided PartyId components.**

R7-82 **For an ISDN calling party, if a number that passes network screening is provided during call setup, then both the networkProvided and userProvided PartyIds (of the CallingParty information element of the CallingPartyId parameter) shall contain the user-provided number.**

R7-83 **For an ISDN calling party, if the calling party did not provide a number, then both the networkProvided and userProvided PartyIds (of the CallingParty information element of the CallingPartyId parameter) shall contain the network-determined (i.e., default) number.**

R7-84 **The CallingPartyId parameter shall be encoded as follows:**

```
CallingPartyId ::= SEQUENCE {
    [0] CallingNatureOfNumber,
    [1] NumberingPlan,
    [2] PresentationRestrictionIndicator,
    [3] ScreeningIndicator,
    [4] CallingParty
    }
```

```
CallingNatureOfNumber ::= ENUMERATED {
    unknownOrNotApplic         (0),
    uniqueSubscriberNum        (1),
    uniqueNationalNum          (2),
    uniqueInternationalNum     (3),
    nonuniqueSubscriberNum     (4),
    nonuniqueNationalNum       (5),
    nonuniqueInternationalNum  (6)
    }


PresentationRestrictionIndicator ::= ENUMERATED {
    presentationAllowed     (0),
    presentationRestricted  (1),
    numberUnavailable       (2)
    }


ScreeningIndicator ::= ENUMERATED {
    notScreened               (0),
    userProvidedPassedNtwkScr (1),
    userProvidedFailedNtwkScr (2),
    networkProvided           (3)
    }


CallingParty ::= SEQUENCE {
    networkProvided  [0] PartyId,
    userProvided     [1] PartyId  OPTIONAL
    }
```

7.3.6 CallSurveillanceEndReason

The CallSurveillanceEndReason parameter indicates the reason why surveillance for a specific call or call attempt ended. When an established two or more party call ends normally (i.e., all parties disconnect and all associated CCCs are released), the reason shall be "normal" as defined below.

> **R7-85   The CallSurveillanceEndReason parameter shall indicate the reason why surveillance of a specific call or call attempt has ended.**

1   **R7-86 When a call or call attempt ends because the subject merged the call into an**
2   **existing call, the mergedToCallId parameter shall indicate the CallId of the**
3   **existing call.**

4   **R7-87 The CallSurveillanceEndReason parameter shall be encoded as follows:**

5   **CallSurveillanceEndReason ::= SEQUENCE {**
6   **reason   [0] ENUMERATED {**
7   **unknown   (0)**
8   **callingPartyAbandons   (1),   -- before audible ringing**
9   **digitCollectTimeout   (2),**
10   **unavailNtwkResources   (3),   -- e.g., no digit receivers available**
11   **invalidInformation   (4),   -- e.g., dialed digits are invalid**
12   **calledPartyBusy   (5),**
13   **noAnswer   (6),   -- after audible ringing begins**
14   **terminationDenied   (7),   -- e.g., by subject's services**
15   **noPageResponse   (8),**
16   **normal   (9),**
17   **merged   (10)**
18   **},**
19   **mergedToCallId   [1] CallId   OPTIONAL**
20   **}**

21

22 7.3.7 CarrierIdentity

23 The CarrierIdentity parameter identifies the carrier.

24   **R7-88 The CarrierIdentity parameter shall indicate the TC involved in an intercepted**
25   **call or call attempt.**

26   **R7-89 The CarrierIdentity parameter shall be encoded as follows:**

27   **CarrierIdentity ::= IA5String (SIZE(3..5))**

28

29 7.3.8 CaseId

30 The CaseId parameter contains a case identifier assigned by the LEA for a particular
31 surveillance. The CaseId will be designated by the LEA and provided to a TC at the time of
32 provisioning of a surveillance.

33   **R7-90 A TC shall assign the CaseId parameter for each surveillance as provided by an**
34   **LEA and shall be sent in all SIMPLE messages corresponding to the subject.**

35   **R7-91 The CaseId parameter shall be encoded as follows:**

36   **CaseId ::= IA5String(SIZE(1..25))**

7.3.9 CCCId

The CCCId parameter identifies the CCC that is assigned to a specific call or call attempt for the duration of the call or call attempt.

R7-92 The CCCId parameter shall identify the CCC that is assigned to an intercepted call or call attempt.

R7-93 The CCCId parameter shall be encoded as follows:

CCCId ::= INTEGER (0..9999)

7.3.10 DedicatedCCCIds

The DedicatedCCCIds parameter identifies all of the CCCs that have been assigned to a particular subject during a surveillance. This parameter uses the structure of the CCCId parameter previously defined.

R7-94 The DedicatedCCCIds parameter shall identify all of the CCCs associated with a particular SubjectId during a surveillance period.

R7-95 The DedicatedCCCIds parameter shall be encoded as follows:

DedicatedCCCIds ::= SEQUENCE OF CCCId

7.3.11 DisconnectPartyId

The DisconnectPartyId parameter provides information associated with the party (either the subject or an associate) that disconnects from a call.

R7-96 The DisconnectPartyId parameter shall identify a party who disconnects from an intercepted call.

R7-97 The DisconnectPartyId parameter shall be encoded as follows:

DisconnectPartyId ::= PartyId

7.3.12 DisconnectReason

The DisconnectReason parameter indicates the reason why a subject or an associate is disconnecting from an established call.

R7-98 The DisconnectReason parameter shall indicate the reason why a party disconnected from an intercepted call.

R7-99 The DisconnectReason parameter shall be encoded as follows:

DisconnectReason ::= ENUMERATED {

1   unknownOrNotAvailable   (0),

2   partyRequestedDisconnect   (1),

3   networkInitiatedTermination (2) }

4

5   7.3.13 FeatureName

6   The FeatureName parameter identifies a feature provided by the TC. The character string
7   provided should be as meaningful as possible and should be consistent with other feature
8   information provided to LEAs. For example, if a subject's service profile is provided via an
9   administrative process (e.g. administrative subpoena), the same feature names should be used.

10   **R7-100   The FeatureName parameter shall indicate the name of the feature.**

11   **R7-101   The FeatureName parameter shall be encoded as follows:**

12   **FeatureName ::= IA5String (SIZE(10..256))**

13

14   7.3.14 FeatureModification

15   The FeatureModification parameter identifies the type of modification performed to a particular
16   feature by a subject.

17   **R7-102   The FeatureModification parameter shall indicate the type of modification**
18   **applied to a feature.**

19   **R7-103   The FeatureModification parameter shall be encoded as follows:**

20   **FeatureModification ::= ENUMERATED {**
21   **assignment   (0),**
22   **unassignment   (1),**
23   **activation   (2),**
24   **deactivation   (3),**
25   **changeOfAssociatedPartyId   (4)**
26   **}**

27   7.3.15 FeatureAssociatedPartyIdList

28   The FeatureAssociatedPartyId identifies parties that are associated with a feature. For example,
29   forwarding features would allow one or more parties to receive an incoming call to the subject.

30   **R7-104   The FeatureAssociatedPartyIdList parameter shall identify all parties**
31   **associated with the corresponding feature.**

32   **R7-105   The FeatureAssociatedPartyIdList parameter shall be encoded as follows:**

33   **FeatureAssociatedPartyIdList ::= SEQUENCE OF PartyId**

34

7.3.16 HeldPartyId

The HeldPartyId parameter provides information associated with the party or parties that a subject has put on hold. The HeldPartyId parameter has a structure similar to the PartyId information element.

R7-106 **The HeldPartyId parameter shall identify a party or parties on an intercepted call who have been placed on hold by the subject.**

R7-107 **The HeldPartyId parameter shall be encoded as follows:**

HeldPartyId ::= SEQUENCE OF PartyId

7.3.17 InputInformation

The InputInformation parameter informs an LEA of input from the subject. Input can take different forms, including the dialed digits of a telephone number, the activation code of a feature, a flash, or an ISDN feature key identification (feature key on an ISDN terminal).

R7-108 **The InputInformation parameter shall include information that the subject dialed or signaled to the network.**

R7-109 **The InputInformation parameter shall be encoded as follows:**

InputInformation ::= CHOICE {
    dialedDigits   **[0] IA5String (SIZE(1..32)),**
    flash   **[1] NULL,**
    featureKey   **[2] INTEGER (SIZE(1..64))**
}

7.3.18 JoinedPartyId

The JoinedPartyId parameter provides information associated with the party or parties that a subject has previously put on hold and is now joining into the active call. The JoinedPartyId parameter has a structure similar to the PartyId information element.

R7-110 **The JoinedPartyId parameter shall identify a party or parties on an intercepted call who have been joined into the active call by the subject.**

R7-111 **The JoinedPartyId parameter shall be encoded as follows:**

JoinedPartyId ::= SEQUENCE OF PartyId

7.3.19 Location

The Location parameter provides information on the approximate location of the subject's terminal in accordance with current industry standards.